Dynamic Edge™ 4.1
PSC604 with PSA2™
User's Guide

Philips Sound Solutions
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Philips Dynamic Edge™

4.1 Channel PCI Soundcard

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1. Introduction

Congratulations on your purchase of the Philips Dynamic Edge 4.1 Soundcard! We know that you'll agree, once you give it the edge, your PC will never sound the same again.

Your next generation Philips Dynamic Edge 4.1 soundcard offers advanced features for today's digital music enthusiasts and PC gamers who demand the absolute best sound possible from their PCs.

As the world's first soundcard to provide incredible surround sound from any stereo source, your new feature packed **Dynamic Edge 4.1** offers a complete suite of rich audio components for awesome gaming, immersive DVD movie soundtracks, and supercharged CD audio and MP3 reproduction that will transform your PC into a sonic powerhouse!

All controls, effects, and enhancements are bundled into a new unified graphical audio control center, **Philips Sound Agent 2**. The new **Philips Sound Agent 2** includes a full suite of studio quality audio DSP processes that automatically add features, depth, and richness to all audio sources:

★ Streaming Internet media, DVD movie audio, CD audio, WAV, MP3, WMA – any audio source is automatically upgraded to higher fidelity!

The **Sound Agent 2** user interface is a simple yet elegant design for the ultimate in PC audio control:

- Modern and appealing look that is audio centric, naturally intuitive, and enjoyable to use.
- A fresh concept, visual representation of advanced audio processing algorithms for headphone, 2, or 4 channel speaker systems.
- Totally customizable settings allow audio fine-tuning with extreme precision.

1.1. KEY FEATURES

Gaming and Music-centric audio components transform your PC into an advanced digital audio processor!

- **QInteractive3D** technology offers precise 3D sound positioning with all headphone and speaker output configurations and is compatible with DirectSound3D, EAX 1.0, EAX 2.0/I3D Level 2, A3D enabled games.
- **QXpander** converts ANY ordinary stereo input to 3D surround sound with any headphone or two-speaker set configuration.
- 15 unique reverb environments using the exclusive **QSound Environmental Modeling (QEM)** algorithms for totally immersive gaming and dramatic musical performances.
- Dynamic Energy Enhancement found in the new **QSizzle*** and **QRumble*** components feature low, mid and high frequency enrichment algorithms to improve sonic fidelity for highly compressed digital audio files such as MP3s and WMAs with natural replacement harmonics that compensate for lost sonic detail. Simply put, it makes MP3's sound great.
- Exclusive **QMSS** technology creates a virtual 4-channel surround field and fills the sound gap between speakers to create a complete 360-degree wraparound audio experience that is smooth and natural.
- **Normalization *** smoothes out the volume differences within audio files and reduces the volume variation within all audio sources - automatically.
- Two Industry standard digital input (S/PDIF In) connectors allows for connection to digital audio outputs for capture, playback, recording, or monitoring.
- Industry standard digital output (S/PDIF Out) allows for connection to digital speakers or external Dolby Digital™ or DTS™ decoders.
- Professional style **10-Band Equalizer *** for precise sound tailoring of all digital audio media.
- Default and user defined **Presets *** for maximum personalization of all your games, music, and movies – exactly the way you like it.

***** Optional features available with the Dynamic Edge Plus Package Upgrade.

1.2. Minimum System Requirements

- 233 MHz CPU
- 32 MB RAM
- One CD ROM Drive
- One open PCI slot
- 800 X 600 Screen resolution (1024 X 780 recommended)
- Headphones, or amplified speakers
- 35 MB of available hard drive space
- Windows® 98SE, Windows® ME, Windows® 2000, and Windows® XP.

Please Note: Each operating system has its own minimum requirements that should be observed. In addition various games and DVD software applications may require higher limits than listed above.

1.3. What Is Included In the Package

You will find the following items in your Dynamic Edge package:

The Dynamic Edge Soundcard
The Dynamic Edge installation CD
The Dynamic Edge User's Guide (on the installation CD)
Quick Start Guide (QSG)
Analog audio cable to connect CD-ROM/DVD-ROM drive to soundcard
Bundled applications (on the installation CD)
Warranty card (Europe only)

2. Soundcard Installation Procedure

Installing your Philips Dynamic Edge soundcard is easy. Please take a moment to read all the steps before proceeding with the installation. The **installation Video** on this CD can provide you with a quick overview of how to install your new soundcard. If you need more details, read through this user's guide.

Note: Computers come in different shapes and sizes. The installation procedure in this manual is general in nature and you should compare the illustrations shown here with your computer hardware before starting your soundcard installation.

2.1. Before Installing Your New Soundcard

Before starting the installation of your new soundcard you need to determine if your PC already has a soundcard, or integrated sound device on the motherboard. Your system can only have one active sound system. Therefore, you should remove or disable the existing sound system before installing Dynamic Edge. **This is very important and failure to do so may result in your Dynamic Edge not working properly.**

If your PC does not have any type of sound system, proceed to ***Soundcard Installation*** section of this manual.

If you know your PC has an add-on soundcard skip to ***Uninstalling the Old Soundcard and Drivers*** section of this document.

If you know your PC has integrated sound system skip to ***Disabling the Integrated Sound*** section of this manual.

If you don't know which type of sound system your PC has, the following text and illustrations will help you determine the type of your PC sound system. Once you know the type, go to the appropriate section to disable, or remove the old sound system.

2.1.1. Identify Your Old PC Sound System

Check the back of your computer in the area of PCI slots (usually toward the bottom (on the tower and mini tower cases) or to the right side (on desktop cases). All the connectors line up in one row on a 4-inch end bracket (similar to your Dynamic Edge end bracket).

Figure 1

Look for the standard soundcard connectors. The standard labels for the connectors are shown in Figure 1.

If the sound system is integrated on the motherboard, usually, the connectors are similar to the add-on card, but they are not on a bracket. They might be stacked up in two rows. Figure 2 shows examples of on-board audio connectors.

Figure 2

2.1.2. Disabling the Integrated Sound

To disable your integrated sound (on-board audio) you will have to enter the system BIOS utility.

Warning: Do not alter any other settings of your BIOS, or your system may not function properly.

Refer to your system documentation on how to activate the BIOS utility.

For useful examples on how to disable the on-board audio please refer to **Appendix C**.

2.1.3. Uninstalling the Old Soundcard and Drivers

Uninstall the drivers for any previously installed soundcards. **This is very important and failure to do so may result in your Dynamic Edge soundcard not working properly.** You should remove the drivers before you take the old soundcard out of your system. Consult the documentation of your old soundcard for details. **Appendix B** contains some useful general instructions on how to uninstall the old audio drivers.

After you remove the old audio drivers, turn off your computer and **disconnect the power cable and all devices that are connected to the computer.**

CAUTION: STATIC ELECTRICITY CAN CAUSE PERMANENT DAMAGE TO YOUR SOUNDCARD

To Prevent Damage:

1. Always hold your soundcard by its edges. Avoid touching any electronic components on your soundcard.
2. Use a grounding strap or touch any non-painted surface of your computer chassis before you begin installation to discharge static electricity.

Follow these steps to remove the old card (Figure 3).

- Unscrew the soundcard and save the screw for the new soundcard.
- Remove the analog audio cable (if connected) from the old soundcard. This cable is usually connected to your CD ROM drive or DVD ROM drive.
- Remove the old soundcard by firmly pulling it out.
- If no soundcard, select an available PCI slot and remove its cover plate.

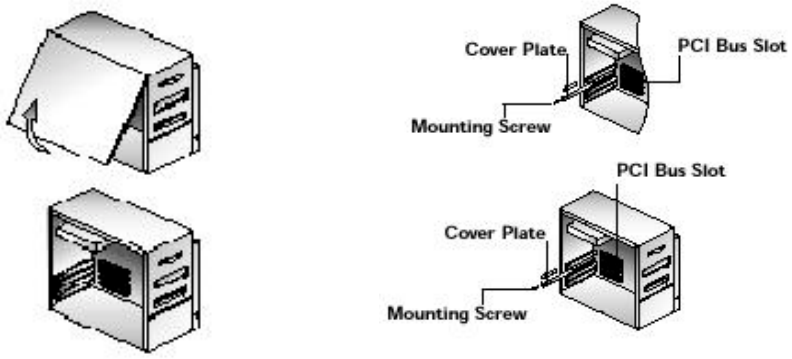

Figure 3

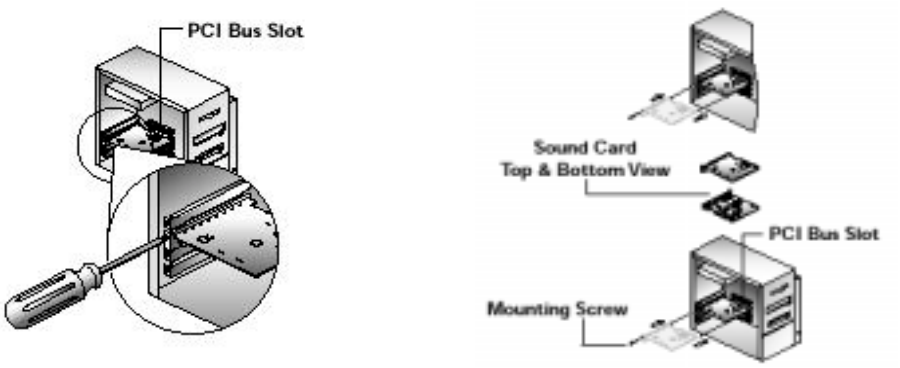

Figure 4

2.2. Installing the New Soundcard

Follow these steps to install the Dynamic Edge card (Figure 4).

- Remove the Dynamic Edge Soundcard from the anti-static bag.
- Align your soundcard with the selected PCI bus slot and firmly push it into the slot. Be sure the soundcard is aligned properly and fits snugly into the slot.
- Connect the cable to the CD-In connector on top edge of the card (Figure 5). There are two analog connectors (CD In, and Aux In). You can connect the analog lines from CD ROM or DVD ROM drive to any one of these inputs. There are also two digital input lines (S/PDIF IN). Any standard S/PDIF output line can be connected to any one of these two inputs. If your CD player has an S/PDIF output line, it is perfectly all right to connect both the analog and the digital outputs of a CD ROM player to the appropriate input. You can select from the Mixer Panel which one to be used as the sound source. The S/PDIF cable is not included in the package.
- Use the screw from the slot cover to secure the soundcard to the frame of the computer chassis.

Put the cover back on the PC and connect the power cord and all the required peripherals to the computer.

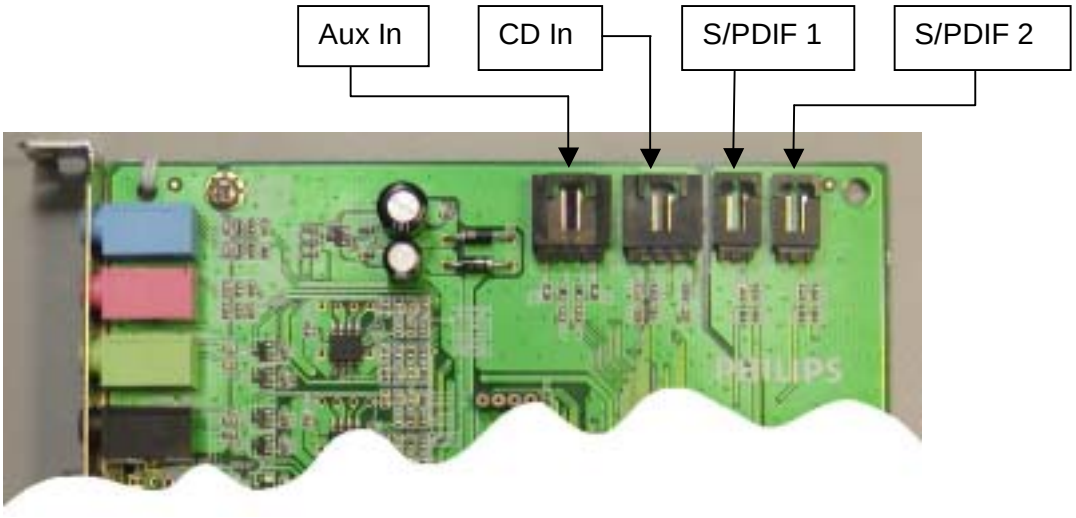

Figure 5

2.2.1. Soundcard External Connection

There are five jacks and one large D-connector (Game/Midi port) on the end bracket (see Figure 6). External analog stereo sources with line level output can be connected to light blue 3.5mm stereo jack at the top of the soundcard bracket. A microphone can be connected to the pink 3.5mm mono jack. An analog or digital joystick and/or MIDI devices can be connected to the large connector at the bottom of the bracket.

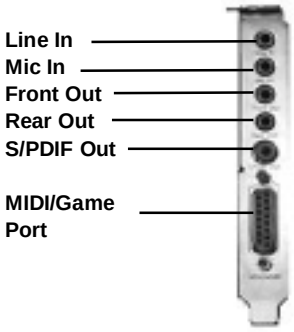

Figure 6

Connect your speakers to the soundcard on the back of your PC. It is strongly recommended that you refer to the documentation that came with your speakers to determine the type and connection specification.

Power up the PC and have the installation CD that came with your new soundcard ready.

2.3. Software Installation

During the boot process, your operating system will detect the new soundcard and will launch the "Found New Hardware Wizard" program. Cancel the Wizard, put the installation CD into your CD-ROM drive, and let the Dynamic Edge driver installation program install the drivers for you. Your PC will detect the CD and automatically bring up the application launch panel (see Figure 7). Click on the "Install Philips Soundcard Drivers" button and follow the directions on your screen.

If for any reason the installation program is not launched from the CD, click on the Windows Start menu, and select Run. Type the following in the window that opens and press Enter:

D:\autolauncher.exe

Where D:\ is the name of your CD Drive.

Once the installation is complete, the installation program will ask you to restart your PC. After the PC reboots, the Sound Agent icon will appear in your Windows System Tray (normally lower right hand corner), as shown in **Figure 8**.

If you want to install any or all of the included applications from the launcher panel, reinsert the CD or follow the above direction to bring up the launcher panel.

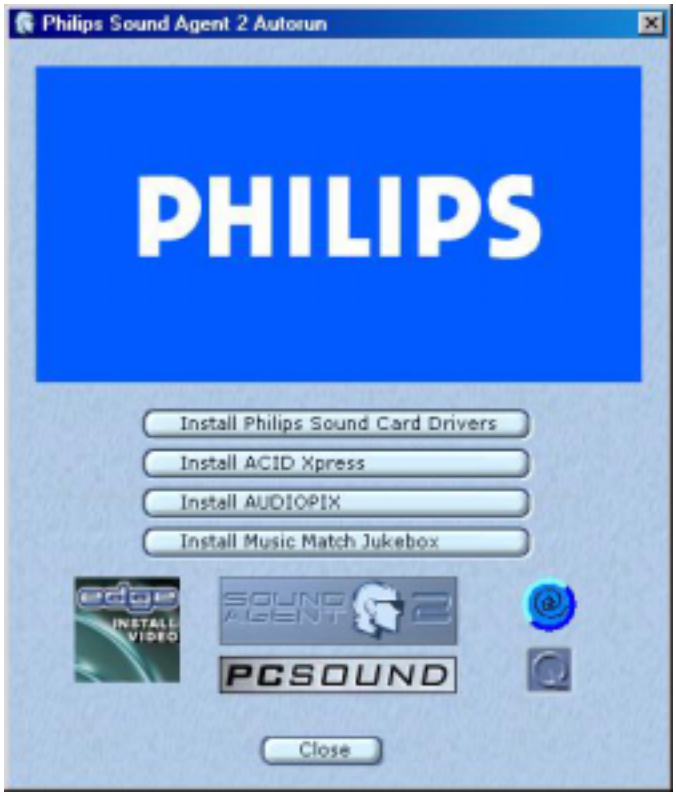

Figure 7

3. Using The Philips Sound Agent 2 (PSA2)

PSA2 is the visual audio interface for the Dynamic Edge soundcard.

3.1. Basic interface operation

To launch and setup your Sound Agent control panel, double click on the PSA2 icon in the System Tray (see Figure 8).

Figure 8.

When you first launch the PSA2 it appears in the fully expanded form, but you can resize it using the Resize button. The compact control Panel contains top-level controls, which allow you enable or disable all of the features and effects provided by PSA2. The purpose of this panel is to take up very little space on your screen while providing easy access to most common controls. To set or change settings, you need to expand to the Main Control Panel using the Resize Button. See Figure 9.

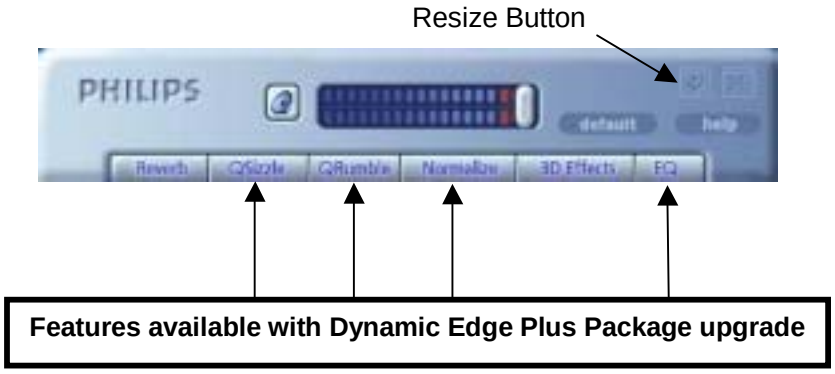

Figure 9.

Please Note:

It is easy to upgrade with Dynamic Edge Plus Package. Go to the INFO TAB in Sound Agent 2 Main control panel and click on "Upgrade to Plus Package" to purchase.

The Main Control Panel is in the center of the expanded mode, and is covered by the Visualization Panel, which slides up and down. The Main Control panel provides access to advanced settings for most PSA2 controls, which are grouped in five separate tabs. To uncover the Main Control Panel, click on the pull down arrow at the bottom of the panel. See Figure 10.

Figure 10

The Visualization Panel provides a graphic representation for advanced audio processing features of the Dynamic Edge. It also includes controls to enable the environmental effects. The Visualization Panel appears only in the expanded mode as a sliding cover for the Main Control Panel.

3.2. Details of Compact Control Panel

The Compact Control Panel contains the following controls:

3.2.1. Master Volume

Master Volume controls the overall output level of the soundcard.

3.2.2. Mute

Toggles all sound on or off.

3.2.3. Resize

Resize Toggles between the compact mode (basic controls) and the expanded mode (for more advanced options).

3.2.4. Close

Closes the PSA2 control panel without affecting audio operation.

3.2.5. Default

Pushing the *Default* button resets all controls to a predefined state. All effects except 3D & Reverb effects are turned off. Speaker mode selection and 3D effects remain unchanged. All playback mixer sliders except microphone are un-muted. Record sliders remain as set by user. Fader and volume sliders are set to their factory default levels, and Presets go to Neutral.

3.2.6. Help

This button launches the on-line help system. It contains detailed descriptions of all features of the PSA2 interface.

3.2.7. Reverb

This button toggles the QSound Environmental Modeling (QEM) on or off. However, some games apply their own environmental effects, which are not controlled by this button. Environmental modeling uses reverb (reflected sound) and delay to create the impression that the listener is in a particular environment.

QEM provides a wide range of high-quality environmental modeling effects that are selectable from the Visualization panel. By selecting a default environment, you impose the effects of that environment for music, movies, or games that do not use the EAX feature,

PSA2 responds automatically to games that use the EAX and EAX2.0 commands. These games automatically control the selection of environments (regardless of what is selected from the Visualization panel) to match various scenes and locations, and change these selections as the environment changes. The applied intensity of reverb is controllable by a slider in the Visualization panel. If the level of Reverb is not as expected, check the slider in the Visualization panel and adjust properly.

3.2.8. QSizzle

Turn on or off the QSizzle effect. When on, enhances the mid/high-frequency range of the audio stream. The button label lights up when QSizzle is enabled.

3.2.9. QRumble

Turn on or off the QRumble effect. When on, it enhances the low frequency range of the audio stream. The button label lights up when QRumble is enabled.

3.2.10. Normalize

Toggles Normalization (automatic volume leveling) on or off. The button label lights up when Normalization is enabled.

3.2.11. 3D Effects

Toggles 3D Effects on or off. This does not affect 3D audio games, but does affect non-3D audio games utilizing the 2D to 3D remixing feature. The button label lights up when 3D Effects are enabled.

3.2.12. EQ

Toggles the 10-band Equalizer on and off. The button label lights up when the Equalizer is enabled. When the button is not activated the EQ remains inoperative.

3.3. Main Control Panel

3.3.1. Accessing the Main Control Panel

To access the Main Control Panel, first open the Philips Sound Agent 2 by double clicking the Sound Agent 2 icon in the system tray. See Figure 11.

Figure 11

If only the bar-shaped Compact Control Panel is visible, you must expand it by clicking on the Resize button on the right hand corner, next to the Close icon.

If the Visualization Panel is covering the Main Control Panel, slide the Visualization Panel cover down to reveal the Main Control Panel by clicking on the arrow at the middle of the lower edge of the Visualization Panel.

Once the Main Control Panel is open, you can choose any of the tabs to select the desired set of controls. See Figure 12.

Figure 12

3.3.2. Effects Tab

The Effects Tab is the first of the Main Control Panel tabs. It contains controls and indicators for 3D enhancements, and active / adaptive frequency and level control processors. Below is a description of all the features on the Effects tab.

3.3.2.1. QSizzle

QSizzle is a mid and high frequency (treble) enhancement algorithm that helps to compensate for the loss of presence, punch and signal detail that often results from compressed digital media, such as MP3 and WMA formats.

QSizzle self-adjusts in real time according to frequency response of the input signal. This is different from the Equalizer, which is a fixed frequency processor. The Equalizer does not monitor the input signal or perform self-adjustment. The label **QSizzle Active** appears in illuminated text when QSizzle is enabled, and **QSizzle Off** when disabled.

3.3.2.2. QRumble

QRumble is a powerful low frequency enhancement algorithm that helps to compensate for loss of bass that may result from digital file encoding such as ripping MP3's or WMA files, or when using lower quality speaker systems.

QRumble responds in real time to the varying nature of the input signal, automatically adjusting itself accordingly. This is very different from the Equalizer, which is a static frequency processor. The Equalizer does not monitor the input signal or perform self-adjustment.

The label **QRumble Active** appears in illuminated text when QRumble is enabled, and **QRumble Off** when disabled.

3.3.2.3. Normalization

Normalization automatically adjusts the volume variations in various audio files or streams. Quieter signals are amplified to match the level of louder ones, so that the listening volume maintains a consistent level. This means that when playing files with various output levels, constantly adjusting your speaker volume becomes a thing of the past.

The label **Normalization Active** appears in illuminated text when Normalization is enabled, and **Normalization Off** when disabled.

3.3.2.4. 3D Effects

The goal of 3D effects processing is to maximize immersion and realism for any type of listening material and every type of output hardware – two or more speakers, headphones, or even the unique combination of speakers with headphones.

Four separate 3D audio enhancement algorithms are provided to maximize the spatial experience no matter what the combination of signal type and output hardware.

When 3D Effects are enabled the audio processor will automatically choose the appropriate algorithm (3D mode) according to your output configuration and the type of input signal. The 3D Effect indicators on the Effects Tab light to show which algorithm is active at any given time.

QXpander is optimal for 2-channel (stereo) input played over 2 speakers (or 2 satellite speakers plus a subwoofer). QXpander provides a wider sound field, way beyond the physical position of the speakers

QSurround is optimal when a multi channel source is played (e.g. a 4.1 channel DVD). QSurround optimizes the sound to create "virtual" speakers and immerse the listener in surround sound.

QMSS is optimal for multi-channel speaker set-ups (4 or 4.1 channel) when a stereo source is used. The majority of sources are stereo (e.g. MP3's, CD music tracks, Wave files, etc) and QMSS transforms these into immersive multi channel experiences with 4 or 4.1 separate channels depending on your speaker set-up.

3.3.3. Equalizer Tab

The Equalizer (EQ) controls the frequency response of the system by increasing or decreasing the frequency response of ten independent frequency bands.

This Equalizer works very much the same as the equalizers in high quality sound systems. Each slider controls the relative level of a band (range) of frequencies. The number listed above each slider column is the center frequency of the band controlled by that slider. When a slider is set to the center position, frequencies within this band left flat and the gain is 0dB. See Figure 13.

Figure 13

To boost the level of a given band, move its slider above the centerline. To cut the relative level of a given band, move its slider below the centerline. Maximum boost or cut is ±12dB on each direction.

Sliders can be individually centered by right clicking anywhere within the slider area, or collectively by clicking the Reset button on top right corner of the panel. Sliders can also be collectively centered by clicking the Default button on the compact panel. Please note that the default button resets several other features as well.

3.3.4. Setup Tab

This tab contains the controls to select and configure your speaker mode based on the type and number of speakers you have.

Your Dynamic Edge soundcard supports a wide range of speakers. From the list on the left side of the Setup tab, you can choose the desired output configuration. This sets up the nature of audio processing, spatial algorithms, and the number of outputs, to suit your choice. Following is a detail explanation of each output mode and each control on this tab. See Figure 14.

Figure 14

3.3.4.1. Headphones

This option selects the headphone sound processing algorithms.

3.3.4.2. Stereo Speakers

This option selects the stereo processing algorithms. Use this option with any stereo speaker system.

We recommend that you enable the 3D Effects in this mode while listening to music and enjoy the surround sound effect that is built into your new PC sound system. For more information read the QXpander section of this manual.

3.3.4.3. Quad Speakers mode

This mode supports two sets of stereo speakers that are evenly spaced around the listening position. The speakers are set up as front left, front right, rear left and rear right,

3.3.4.4. Digital Output (S/PDIF)

Philips Dynamic Edge soundcard features two digital inputs and one digital output. You can select either one of the inputs to come out either on the analog or digital (S/PDIF-Out) line. See Digital Input Sources under Mixer tab.

The S/PDIF Out and the Center/LFE share the same connector. For this reason when you select Digital Output mode, your analog output automatically changes to Stereo Speakers mode and only the contents of the front speakers come out of the S/PDIF output. To go back to analog mode, simply click on Quad Speakers, or 4.1 Channel Speakers mode.

3.3.4.4.1 AC3/DTS Pass-Through

Dynamic Edge passes AC3 or DTS digital audio data from a DVD to S/PDIF OUT. This feature allows you to play a DVD on your PC using a soft-DVD player, utilizing an external AC3/DTS decoder. Examples of an external decoder are receivers, speaker sets with built in AC3 decoder, or a stand-alone AC3 decoder boxes. AC3 is available when using a compatible soft-DVD player capable of streaming AC3 or DTS data to the soundcard. To enable AC3/DTS Pass-Through, you must select Digital Output (S/PDIF) in the Setup Tab.

3.3.4.5. Preamp Slider

The Preamp Level control allows you to boost the audio signal before it passes through the amplification circuitry. To the outside world it has the same effect as the master volume has.

Caution: If you notice any distortion in the sound, lower the Preamp Slider level to eliminate the distortion.

3.3.4.6. Fader Slider

Fader controls the balance between the front and the rear speakers.

3.3.4.7. Center Slider

Center controls the level of output on the center speaker only. Use this slider to adjust the volume on the center speaker.

3.3.4.8. LFE Slider

This slider provides control for the volume level of the subwoofer.

3.3.4.9. Balance Slider

This slider allows you to balance the left and the right speakers. It affects the front and the rear speakers.

3.3.4.10. Test Button

The Test button opens a window, which allows you test your speakers one by one. Testing a speaker channel enables you to ensure that the speakers or headphones are properly connected.

The test utility displays a button for each of the possible output channels, but the number of active buttons depends on your selected output mode. Click any active speaker button to send the test sound to the corresponding speaker. See Figure 15.

The “Loop Sounds” button allows you to repeat the test sound until you click Stop. If the Loop Sounds is off, the sound will only play once for each click of a speaker button.

The Auto button sends the test sound to each speaker once and moves it to the next speaker automatically.

The Close button exits the test utility and returns you to the Main Control Panel Setup Tab.

Figure 15

3.3.5. Mixer Tab

Mixer Tabs allow you to select and control playback, recording, and S/PDIF input sources.

3.3.5.1. Playback source controls

You can individually mute or un-mute as many playback sources as you wish.

Volume sliders set the playback level for each source.

Balance sliders adjust the relative left and right output levels for each stereo source. Balance sliders should normally be left in the center, which is the default position. Right-click any of the balance sliders to center it.

The viewing area on the Mixer Tab displays controls for a maximum of four playback sources at one time. Use the Playback Source Scrollbar to reveal more source controls. See Figure 16.

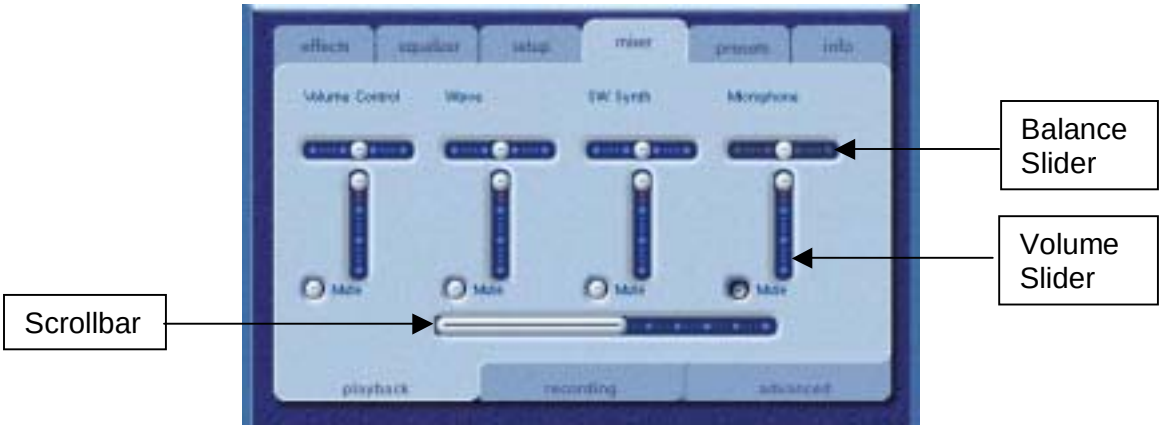

Figure 16

3.3.5.2. Recording Source Control

Philips Dynamic Edge allows you to record sounds and music from various input sources. Select the Mixer tab, go to the bottom of the panel and click on “recording”. This panel enables you to select and control recording sources.

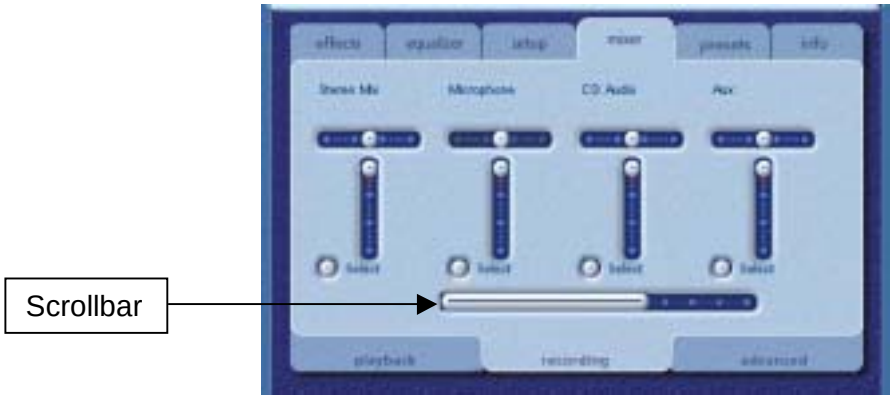

Figure 17

Before you start recording, you need to configure the recording source. Select a source by clicking the appropriate “Select” button. Each source has its own level and balance controls. To set each slider in its default position, right click on that slider.

Drag the scrollbar from side to side to scroll Source Controls across the viewing area to reveal more controls that may otherwise be hidden.

The Microphone Boost button located on the Advanced tab provides extra amplification for weak microphone signals. If distortion occurs, turn Boost off.

To view additional sources, drag the scrollbar to slide the set of source controls back and forth through the viewing area.

The **Stereo Mix** option allows you to record from all the available sources simultaneously, provided that you have input to the source.

3.3.5.3. Advanced Tab

Your new soundcard has two digital input lines. They are located on top of the soundcard and can be accessed from inside the computer box. They are designed to be connected to your CD ROM and/ or DVD ROM drives. The audio signal fed to these inputs can be recorded and monitored on your speakers.

The following controls are on the Advanced tab. See Figure 18.

3.3.5.3.1 Microphone Boost

The Microphone Boost button provides extra amplification for weak microphone signals. If distortion occurs, turn Boost off.

3.3.5.3.2 S/PDIF Capture

This button enables recording from one of the digital input lines. If you select S/PDIF Capture to be the source for recording the Recording sub tab of the Mixer becomes unavailable.

Note:
S/PDIF input recording is limited to 44.1 KHz, 16-bit stereo and 48 KHz 16-bit stereo. Any other recording formats may produce unpredictable results.

3.3.5.3.3 Select S/PDIF-In to Digital or Analog Out

These two options allow you to enable monitoring the input digital signal that is being captured to either your digital or analog speakers. You can select the type of output mode on the Setup tab.

Figure 18

3.3.5.3.4 Select S/PDIF Input Device # 1 or # 2

Only one of the two inputs may be selected as a source for recording at a time.

3.3.6. Presets Tab

The Preset functions enable you to make snapshots of the state of all Philips Sound Agent 2 controls, so that you can conveniently reload the same settings at any time.

Figure 19

The Preset system enables you to save the state of your Philips Sound Agent 2 controls once you have adjusted them for a certain purpose, so you can bring back that entire settings in one click the next time you want to listen to a similar sound stream.

For example, if you have been listening to drums'n'bass, and have adjusted the controls to suit your taste, you can quickly save a preset called Drums'n'Bass. Whenever you listen to this type of music again, simply load this preset, and all the controls will return to the settings you had in effect when you saved it.

Your Sound Agent comes with several factory presets as listed on the Presets tab.

3.3.6.1. Load

Clicking on this button loads an existing preset.

3.3.6.2. Save

When you load one of your presets and make changes to it, you can save it by clicking on the Save button. If you have selected one of the factory presets, you will not able to use the save button. The Sound Agent will not overwrite a factory presets, but you can overwrite your presets.

3.3.6.3. Save As

You can load an existing preset (factory or one of yours), modify it to your taste, and save it as a new preset.

3.3.6.4. Delete

Deletes the selected preset permanently from the list. When you select one your presets and click on this button, a confirmation dialog box will appear and when you confirm by clicking the OK button,

the preset will be removed from the list. This button does not work if you have selected one of the factory presets.

3.3.7. Info Tab

This tab contains useful information regarding the product. It includes the software driver's version number, manufacturer's name, and the web page address for possible upgrade software.

Figure 20

3.4. Visualization Panel

The Visualization Screen provides graphical representations of the environments that are created by Philips Sound Agent 2. It also contains two menus and one Reverb Intensity Slider. The selection menu on the right contains all the choices for Reverb environmental effects. The menu on the left contains the list of presets for various types of music. The Slider controls the intensity of the effect that is applied to the music.

The Visualization Screen may be moved up and down to conceal or reveal the Main Control Panel, by means of the button at the center of its lower edge.

Figure 21

4. Uninstalling Software Drivers

If it becomes necessary to uninstall your Philips Dynamic Edge drivers, you can choose one of the two methods available. You may go to the system control panel and launch the “Add/Remove Programs” utility as shown in Figure 22 (from Windows XP). From the list of programs find Philips Sound Agent 2 and click on it so it is highlighted. Click the “Add/Remove” button in Windows 98/ME, or “Change/Remove” in Windows 2000/XP.

OR, you may choose the uninstall program that comes with the Philips Sound Agent 2 program. For this you click on the Windows Start button, click on the “Programs”, (or “All Programs” in XP) tab, and click on the Philips Sound Agent 2 tab and select the Uninstall program.

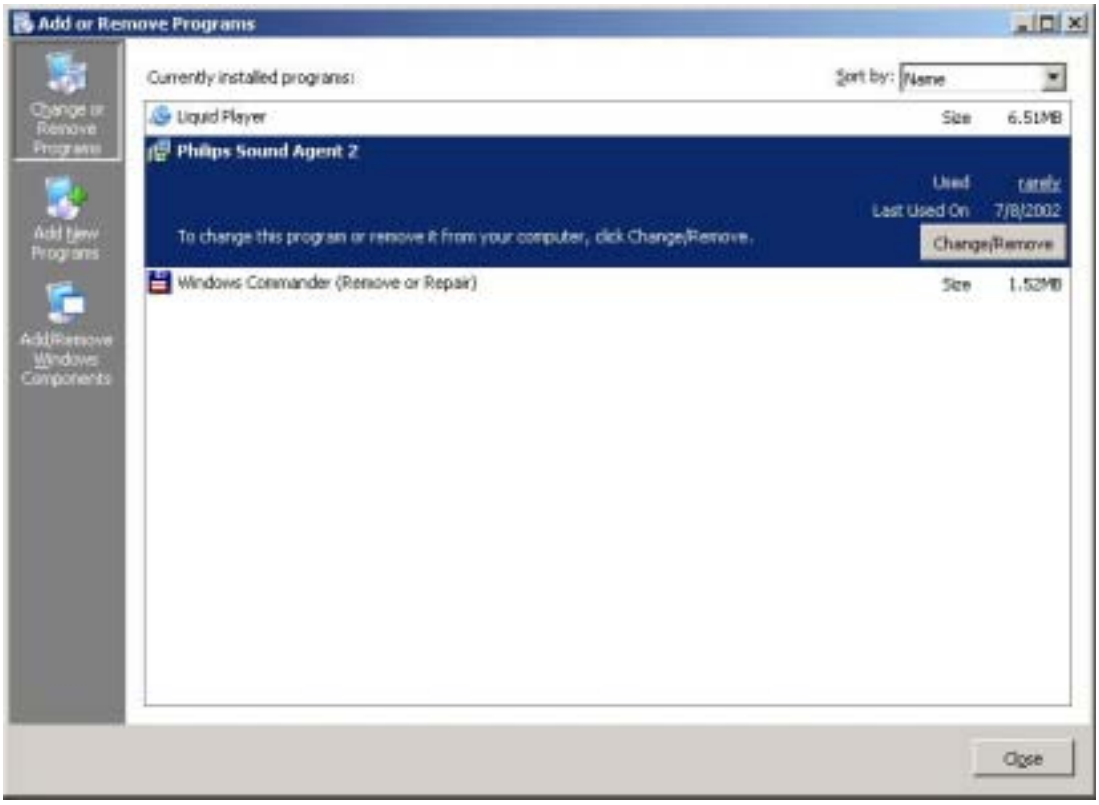

Figure 22

5. Technical Support And Warranty

Before calling the technical support number please make sure you have the following information available:

- Model number and date of purchase.
- Computer type, processor speed, and memory available.

Computer operating system (IE; Windows® 98SE, ME, etc.).

- On-screen error information.
- Other hardware connected to your soundcard.

5.1. Internet Address:

You can find vast amount of useful information on the web. The URL for USA web site is

http://www.philips.com/ce

The web site for Europe is

http://www.philips.com/sound

5.2. Technical Support Information:

Toll-Free telephone numbers:

USA:	1-800-835-3506
Elsewhere:	See Warranty Sheet in your package.

5.3. Warranty Statement

Philips Sound Cards Warranty Conditions

For Personal Use Only

USA and North American Customers Only

One-Year Free Parts, Labor and Technical Support

WHO IS COVERED?

You must have proof of date of purchase to receive warranty service. A sales receipt or other document showing when you purchased the product is considered ample proof of date of purchase.

WHAT IS COVERED?

Warranty coverage begins the day you buy your product. For one year thereafter, all parts will be repaired or replaced, with free labor. After one year from the day of purchase, you must pay for the replacement or repair of all parts, and for all labor charges. All parts, including repaired and replaced parts, are covered only for the original one-year warranty period. When the warranty on the product expires, the warranty on all replaced and repaired parts also expires.

WHAT IS EXCLUDED?

Your warranty does not cover:

• Labor charges for installation or setup of the product, adjustment of customer controls on the product, and installation or repair of other systems outside of the product.

• Product repair and/or part replacement due to misuse, accidents, unauthorized repair or other external causes not within the control of Philips Consumer Electronics.

• A product that requires modification or adaptation to enable it to operate in any country other than the country for which it was designed, manufactured, approved and/ or authorized, or repair of products damaged by these modifications.

• Incidental or consequential damages resulting from the product. (Some states do not allow the exclusion of incidental or consequential damages, so the above exclusion may not apply to you.

This includes, but is not limited to, pre- recorded material, whether copyrighted or not copyrighted.)

• A product used for commercial or institutional purposes.

WHERE IS SERVICE AVAILABLE?

Warranty service is available in all countries where the product is officially distributed by Philips Consumer Electronics. In countries where Philips Consumer Electronics does not distribute the product, the local Philips service organization will attempt to provide service (although there may be a delay if the appropriate spare parts and technical manual(s) are not readily available).

WHERE CAN I GET MORE INFORMATION?

For more information, contact the Philips Customer Care Center by calling

(800) 835-3506 (U. S. A. customers only).

BEFORE REQUESTING SERVICE...

Please check your owner's manual before requesting service. Adjustments of the controls and/or procedures covered in the manual may save you a service call.

TO GET WARRANTY SERVICE IN U. S. A., PUERTO RICO,

OR U. S. VIRGIN ISLANDS...

A Return Merchandise Authorization (RMA) number must be obtained by calling (800) 835-3506.

Write the RMA number conspicuously on the outside of the product carton. Ship the product in its original carton and packaging material prepaid to the Philips repair center listed below. If you do not have the original carton and packaging material, call the number above. Philips will advise you on proper packaging and shipping procedures. Charges to ship the product to the repair center are the customer's responsibility. After repair/ replacement, the return product shipment is made by Philips.

The repair center may keep defective parts.

Repair Center Address: Philips Electronics

1001 Snapps Ferry Rd

Greeneville, TN 37745

Make sure you write your name, address, RMA number, and model number in at least two places on the package. The RMA desk will provide returning shipping address.

(In U. S. A., Puerto Rico, and U. S. Virgin Islands, all implied warranties, including implied warranties of merchantability and fitness for a particular purpose, are limited to the duration of this expressed warranty. But, because some states do not allow limitations on how long an implied warranty may last, this limitation may not apply to you.)

We recommend that you print a copy of this warranty for your records and record below the model and serial numbers found on the product.

MODEL No. _____

SERIAL No. _____

This warranty gives you specific legal rights. You may have other rights which vary from state/ province to state/ province.

For more information write to: Philips Customer Care Center, P. O. Box 520890, Miami, FL 33152

6. Appendix A

6.1. Useful Tips For Speaker set-up, And More

Following is some suggestions to help you set up your audio hardware for best results.

6.1.1. Ideal Listening Scenario (Speakers)

The ideal way to experience proper imaging, whether stereo, surround, or 3D, is to begin by arranging each pair of speakers as symmetrically as possible.

Front speakers should be at the same height, angle and distance relative to the listener. You will obtain best imaging if the distance between you and speakers are about the same distance as between the speakers.

A typical multimedia set-up, with the speakers placed just to either side of the computer monitor, is ideal for stereo or quad listening. However, if your system has a center speaker, then it is advisable to move the left and right front speakers further apart, maintaining equal distance from the listening position.

Surround speakers should be placed behind the listener, and ideally be no further than the front speakers from the listener. They also need to be at the same height and angle as the front speakers.

6.2. Ideal Listening Scenario (Headphones)

When using headphones, many of the potential problems associated with speaker listening are essentially eliminated. For example, you are automatically positioned in the center, and if you move around, this doesn't change your position relative to the speakers.

In case you wish to use the Speaker + Headphone output mode, you should not select the types that completely cover your ears and isolate the sound coming from the front speakers. Special headphones (sometimes called open-air headphones), or the compact types as well as ear bud headphones can be used successfully.

6.2.1. Avoid Reflective Surfaces (Speakers)

If possible, keep your speakers away from reflective surfaces. For example, if your setup is in a corner and one speaker is very close to a sidewall, this will degrade imaging. This is because sound waves will bounce off the wall and arrive at your ears slightly later than the waves originating directly from the speaker.

This is true of any environment except an anechoic (echo-free) chamber. However, when the surface is close to the speaker, the reflected sound energy will be only slightly delayed and still quite strong compared to the original, which will reduce the clarity of the signal you hear.

The same can be true of placing your speakers directly on a hard desktop. If possible, elevate your speakers on stands so they are further away from the reflective surface. This will slightly improve the imaging and effects.

6.2.2. Balance the Speakers and Headphones

Any imaging, including stereo, surround and especially 3D audio, can be degraded by left/right channel imbalances. If your speakers or amplifier(s) incorporate balance controls, we strongly recommend adjusting them to their center position. Many physical balance controls have a mark to identify the center position.

If each speaker has separate volume controls, try to set them as equally as possible. You can use the Philips Sound Agent 2 test utility to help you judge the volumes.

This practice applies to headphones as well.

7. Appendix B

Uninstalling the Old Drivers and the Soundcard

Regardless of which one of the supported operating systems you have, the following general steps are used to remove the old drivers. It is recommended that you remove the drivers before you take the old soundcard out of your computer.

- Click on the start button
- Click on the Settings and select Control Panel
- Double click on Add/Remove Programs
- Find the audio drivers on the list. Warning: Be sure you select the right drivers and you are not deleting any other program.
- Click on the Remove (or Add/Remove) button.
- When uninstall is finished removing the drivers, click OK, close all applications.

In most cases the above procedure removes the drivers. However, it is a good idea to check the Device Manager to be sure every thing is removed. If you are not familiar with Device Manager just follow these steps:

- Right click on My Computer icon and select Properties. If your desktop does not show an icon for My Computer, click on the Start button and Right click on My Computer, then select Properties. A new window will open.
- On Windows 2000 and XP, select the Hardware tap on top and click on the Device manager button at the middle of the window.
- On Windows 98SE and ME select the Device Manager tab on top.
- In the Device Manager window locate “Sound, video, and game controllers”.
- Click on the + next to it. A list of devices will drop down from this selection.
- Select your soundcard, right click on it.
- From the drop down menu select Remove. Click on OK.

There may be more than one component to the old soundcard, such as a game port. Make sure you remove all components before exiting the Device Manager.

Close Device Manager and shut down your system to proceed with removing the old soundcard out of your PC. Please go back to *Soundcard Installation* section of this document.

8. Appendix C

Disabling the Integrated Sound

To disable the on-board audio you need to enter the system BIOS setup. Most computers only allow you to enter the setup right after power up and just before the operating system starts loading. A message may appear briefly to inform you that you can enter the setup. Typically, this message shows up at one of the corners of the screen and says something like

“Press Del to enter setup”, or “Press F1 to enter setup”.

Some computers allow you to enter setup at any time. Refer to your PC’s documentation on how to enter the setup utility. Find out how to enter the setup utility in your system and invoke it.

Warning: Do not change anything that you are not sure what it is, or your system may not function properly.

In the setup utility usually there is a list of options. One is the Standard Features that includes the time/date, and PC’s basic peripherals such as hard drive, keyboard, mouse, etc. Another is the Advanced BIOS Features. Yet another is PnP and/or PCI Configuration. You may enter each of these menus and look at the list of the options they provide. Use the arrow keys on the keyboard to navigate through the setup utility.

Find the menu that contains the controls for the audio and sound feature. Select the menu by moving the highlight on this menu, and hit Enter.

Locate the Audio or Sound device and select it using the arrow keys. Read the direction at the bottom of the screen on how to change the settings. It may be the Page Up/Down keys, or +/- or something else. Change the setting from “On” to “Off”, or from “Enable” to “Disable”, or whatever the options are in your PC.

Save your settings and exit.